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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

David Alan FORD et al.

Application No.: 09/859,532

Filed: May 18, 2001

For: SINGLE CRYSTAL SEED ALLOY

Group Art Unit: 1742

Examiner: A. Wessman

Docket No.: 109528

CP/74.2  
#  
8/10  
12/19/02

AMENDMENT

Director of the U.S. Patent and Trademark Office  
Washington, D.C. 20231

Sir:

In reply to the August 12, 2002 Office Action, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 4, between lines 18 and 34, combine into a single new paragraph as follows:

9) The compositions investigated also included two-component nickel/tantalum alloys containing tantalum in the range 10-30 weight %. A particularly successful alloy contained 20% tantalum which solidifies at about 1400°C and was found to be an effective seed alloy for the superalloy CMSX4. Tantalum levels of around 30% solidify at 1360°C and are appropriate for casting single crystal components from alloys with melting points of around 1350°C. These compositions have melting temperatures which are not less than 1300°C and not greater than 1400°C, these temperatures being appropriate for the majority of superalloys.

The compositions have the added advantage of narrow solidification ranges, being not greater than 20°C, which reduce the potential for secondary crystal nucleation during solidification.

12/19/2002 RSHOLSON 00000001 150451 00055502

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